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10/726,879	12/03/2003	Daniel J. Rogers	M61.12-0538	5357

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EXAMINER

TRUONG, LECHI

ART UNIT	PAPER NUMBER
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2194

MAIL DATE	DELIVERY MODE
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01/02/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/726,879

Applicant(s)

ROGERS, DANIEL J.

Examiner

LeChi Truong

Art Unit

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

1. Claims 1-24 are presented for the examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims **1-5, 10-16, 18-21, 23, 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sonera (Web Services White paper) in view of Flurry (US. Patent 7, 188155), and further in view of Chan (US 2007/0226093 A1).

As to claim 1, Sonera teaches the invention substantially as claimed including: a first business software component (a service provider, sec: 2, ln 6-7), discovering (discovers, sec: 2, ln 8-9), discovering information about a first business software component (sec: 2, ln 8-16/ sec: 6, ln 1-8), the first/second component capability or first/second component requirement (the necessary information for invoking the provided services, sec: 6, ln 4-5/ the services located (binding Template) and reference to information on how they can be invoked, sec: 6.2, ln 16-18), the first business software component having at least one first component capability or first component requirement(sec:6, ln 4-5), binding(binding, sec: 5, ln 14/ ln 17-20/ ln 28-31), a first/ second role in a model driven bus(a particular port type/ port type is an abstract set of

operations [role]supported by one or more endpoints, sec: 5, ln 12-16), binding the at least one first/second component capability or first component requirement to a first/second role in a model-driven bus(sec: 7, ln 9-16).

Sonera does not explicitly teach plurality business software components discovering information about a second business software component. However, Flurry teaches plurality business software components, discovering information about a second business software components (Target services 560[business software components] are accessed through the on-ramp device 550 which is used to perform discovery and selection of target service implementations based on WSDL service definitions defined by the off-ramp configuration file 542, col 10, ln 14-18/ Fig. 5).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Sonera with Flurry to incorporate the feature of plurality business software components discovering information about a second business software component because this allows interoperability between systems and applications by using Web services which are built using standard technologies.

Sonera and Flurry do not teach stand-alone business software. However, Chan teaches stand-alone business software (these applications are typically customized to support the "standard" applications electronically, but they cannot accommodate "non-standard" applications electronically. In addition the application models for different types of applications may be customized to each type of application. As an example, a financial institution may have a loan application data model and a separate checking account application data model, para [0004], ln 16-23/ Fig. 14).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Sonera and Flurry with Chan to incorporate the feature of stand-alone business software because this provides an effectively model relationships and facilitates the upgrading of customizations of data model.

As to claim 2, Sonera teaches discovering information about the first business component is performed by a discovery manager (sec: 2, ln ln 8-9).

As to claim 3, Sonera teaches discovering information about the second business component is performed by a discovery manager (sec: 2, ln 8-9).

As to claim 4, Sonera teaches discovering information about the first business component occurs automatically (sec: 7, ln 13-16).

As to claim 5, Sonera teaches discovering information about the second business component occurs automatically (sec: 7, ln 13-16/ sec: 5, ln 11).

As to claim 10, Sonera teaches providing standardized messaging between the first and second business software components (sec: 4, ln 11-13).

As to claim 11, Flurry teaches examining role bindings to determine if a business process can be enabled (col 7, ln 37-42).

As to claim 12, Flurry teaches examining includes comparing process role bindings to predefined process pattern information (col 9, ln 4-16).

As to claim 13, Flurry teaches the predefined process pattern information is part of a pattern fitness layer (col 10, ln 5-15/ Fig. 5).

As to claim 14, it is an apparatus claim of claim 1; therefore, it is rejected for the same reason as claim 1 above. In additional, Furry teaches a software bus having a temporally stable

interface designed in accordance with a comprehensive business taxonomy (col 10, ln 10-19/ 29-37), a first business software (client 510, col 10, 5-10), a second business software (Target services, col 10, ln 14-18), a first portion (a web service operation, col 10, ln 5-10 and ln 30-37), a second portion (target device implementation, col 10, ln 15-18), and Chan teaches application (these applications are typically customized to support the "standard" applications electronically, but they cannot accommodate "non-standard" applications electronically. In addition the application models for different types of applications may be customized to each type of application. As an example, a financial institution may have a loan application data model and a separate checking account application data model, para [0004], ln 16-23/ Fig. 14).

As to claim 15, Flurry teaches the software bus includes a message routing layer for communication with each of the software components (col 5, ln 5-10/ Fig. 5).

As to claim 16, Flurry teaches includes a pattern fitness layer to check information relative to the first and second software components (col 10, ln 5-20/ Fig. 5).

As to claims 18-21, Flurry teaches the software bus includes a replication layer, the software bus includes an auditing layer, the software bus includes a key performance indicators layer, the software bus is usable with different comprehensive business taxonomies (col 5, ln 5-25/ Fig. 5).

3. Claims **23, 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sonera (Web Services White paper) in view of Flurry (US. Patent 7, 188155),

As to **claim 23**, Sonera teaches standardized durable application programming interface (the UDDI application programming interface, (page 7, ln 1-6), a standardized side (service provider, page 7, ln 10-16), a software component side customized configured to interact with a specific software component (the roles and interactions between the components, Fig 2-1).

Sonera does not explicitly teaches a software component side customized configured to interact with a specific software component, wherein the standardized side includes data relative to at least one business process that is not supported by the software component. However, Furry teaches software component side custom-configured (the client device 510, col 10, ln 15-50), a specific business software component (a server side of the system, col 10, ln 5-15); and a standardized side (one-ramp device 520/ off-ram 540, col 10, ln 5-15), durable application programming interface (the application programming interface 521, col 10, ln 19-25/ Fig. 5), wherein the standardized side includes data relative to at least one business process that is not supported by the software component(col 11, ln 15-23).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Sonera with Flurry to incorporate the feature of a software component side customized configured to interact with a specific business software component, wherein the standardized side includes data relative to at least one business process that is not supported by the software component because this allows interoperability between systems and applications by using Web services which are built using standard technologies.

As to **claim 24**, Sonera teaches the stand-alone (applications are modeled as compositions of services provided by component... A service provider, page 1, ln 25-28), metadata(WSDL, pare 8; ln 11-13); describing requirement of the stand-alone business software

component with metadata(the service provider implements the service and describes the interface using a WSDL, page 8, ln 11-13), Flurry teaches metadata (WSDL, col 2, ln 5-5), describing capabilities of the stand-alone business software component with metadata; (col 2, ln 5-15) , generating a standardized software adapter(extended web services framework on-ramp device 520, col 10, ln 7-13.

4. Claims **6-8, 17, 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sonera (Web Services White paper) in view of Flurry (US. Patent 7, 188155) in view of Chan(US 2007/0226093 A1), as applied to claim 1 above, and further in view of O'Konski et al (US. Patent 6, 996500).

As to claim 6, Sonera, Flurry and Chan do not teach installation of the first business software component. However, O'Konski teaches installation of the first business software component (a diagnostic application is installed as a Web Service upon a server, col 3, ln 64-67/ a computer operating system or other diagnostic software installed upon SOAP server 310/ col 5, ln 5-7).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Sonera, Flurry and Chan with O'Konski to incorporate the feature installation of the first business software component because this provides the limitations that relied upon platform specific solutions.

As to claims 7, 8, O'Konski teaches metadata (col 4, ln 5-9).

As to claim 17, O’Konski teaches the software bus includes an administration layer to facilitate user management of the components (col 5, ln 25-30).

As to claim 22, O’Konski teaches domain-specific (col 4, ln 15-20).

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sonera (Web Services White paper) in view of Flurry (US. Patent 7, 188155) in view of Chan(US 2007/0226093 A1), as applied to claim 1 above, and further in view of Scardamalia et al (US. Patent 6295571 B1).

As to claim 9, Sonnera, Flurry and Chan do not teach least one capability of the first business software component overlaps at least one capability of the second business software component, and wherein the model-driven bus provides arbitration such that only one of the first and second business software components provides the overlapping function. However, Scardamalia teaches one capability of the first business software component overlaps at least one capability of the second business software component (overlapping read and write operations will only interfere with one another when two such operation attempt to access the same memory bank at the same time, col 13, ln 40 –45), wherein the model-driven bus provides arbitration such that only one of the first and second business software components provides the overlapping function (Although any suitable arbitration scheme may be used for such collisions, care is taken to avoid any priority-type arbitration method from resulting in locking out one or more computer systems from accessing shared memory for a prolonged period of time, col 13, ln 40 –49).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Sonera, Flurry and Chan to incorporate the feature of overlaps at least one capability and arbitration because this eliminates the requirement to pass messages between processors and significantly reduces the data transfer times.

Response to the argument:

6. Applicant amendment filed on 9/03/04 has been considered but they are not persuasive:

Applicant argued in substance that :

(1) “ where is the standardized side? Where is the durable application interface? where is the data relative to at least one business process that is not supported by the software component”.

(2) “ the WSDL description of a web service is not equivalent , not an obvious extension of the method steps of describing capabilities and requirement of a stand-alone business software component”.

7. Examiner respectfully disagreed with Applicant's remarks:

As to the point (1), Sonera teaches the roles and interactions between the components, Fig 2-1 and Flurry teaches software component side custom-configured (the client device 510, col 10, ln 15-50), a specific business software component (a server side of the system, col 10, ln 5-15); and a standardized side (one-ramp device 520/ off-ramp 540, col 10, ln 5-15), durable application programming interface (the application programming interface 521, col 10, ln 19-25/ Fig. 5), wherein the standardized side includes data relative to at least one business process that is not supported by the software component(When a client device sends a request for an operation of a web service to the off-ramp device 540, the off-ramp device 540 first compares

the portType identified in the request to the portTypes in the configuration file 542. If the portType exists in the configuration file 542[not supported by software component], its associated attributes are then used to determine how to identify a web service implementation to perform the requested operation. If the portType does not exist in the configuration file 542, a fault is generated col 11, ln 15-23).

As to the point (2), Sonera teaches applications are modeled as compositions of services provided by component [stand-alone]... A service provider (page 1, ln 25-28), the service provider implements the service and describes the interface using a WSDL, page 8, ln 11-13).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (571) 272 3767. The examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomson, William can be reached on (571) 272 3718. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

LeChi Truong

December 20, 2007


WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER